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| BANNER & WITCOFF 1001 G STREET N W SUITE 1100 WASHINGTON, DC 20001 | | | PHILPOTT, JUSTIN M | |
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DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,150

Applicant(s)

PEKONEN, HARRI

Examiner

Justin M. Philpott

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-51 in the Appeal Brief, filed November 22, 2005 have been considered but are moot in view of the new ground(s) of rejection. Specifically, applicant's argument that prior art does not disclose a specific "time slice parameter" as claimed is rendered moot since the newly cited prior art of Qiao clearly teaches that such a feature is well known in the art, as discussed in the following office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,923,655 to Veschi et al. in view of U.S. Patent No. 6,807,235 to Yano et al., further in view of U.S. Patent No. 6,956,868 to Qiao.

Regarding claims 1, 14, 24, 30, 38 and 43, Veschi teaches a time-slicing digital video broadcasting transmitter system and method comprising: a buffer (e.g., queue of packets in Ethernet controller, see col. 10, lines 31-36) that receives at least one of digital video content and digital audio content from an information service provider (e.g., server 160, see col. 9, lines 35-39); an encapsulator (e.g., packet assembly circuit within processor 210, see col. 10, lines 27-36

Art Unit: 2665

and FIG. 2) that receives the buffered content from the buffer and that forms at least one packet header (e.g., header 310) for a current packet of a current burst of packets (e.g., see col. 10, lines 27-36 regarding packet assembly circuit), wherein the current packet contains a first portion of the buffered content (e.g., see col. 13, lines 34-42 regarding sample 380), wherein the at least one packet header contains information (e.g., position identifier 370) that specifies a relationship between the current packet of the current burst of packets (e.g., audio video sample 380, one of samples 1-5 in FIG. 5) and a subsequent burst of packets that contains a second portion of the buffered content (e.g., one of other samples, see col. 13, lines 42-44 and col. 14, lines 9-19); and a digital video broadcast transmitter (e.g., Ethernet controller 206) that transmits the current burst of packets and the subsequent burst of packets (e.g., see col. 9, lines 56-63). Further, regarding claims 14, 24 and 38, Veschi teaches a corresponding receiver to the above-mentioned digital video broadcasting transmitter system, comprising a buffer (e.g., receiving buffer 510) and an application processor (e.g., packet disassembly circuit) for extracting information specifying a relationship between the current packet of the current burst of packets and the subsequent burst of packets (e.g., see col. 16, lines 12-30).

However, Veschi may not specifically disclose the information comprises a time-slice parameter or a parameter that allows the receiver to enter a reduced power-consumption state for a duration.

Yano, like Veschi, also teaches a packet-based communications system and, specifically, teaches a parameter (e.g., within DPCCH, see FIG. 5) received allows the receiver to enter a reduced power-consumption state for a duration (e.g., see col. 5, line 57 – col. 6, line 14; and col. 6, lines 38-59) between a current burst of packets (e.g., DPDCH data in a first slot of a frame)

Art Unit: 2665

and a subsequent burst of packets (e.g., DPDCH data in a subsequent slot). Additionally, teachings of Yano provide transmission operation with the improvement of reduced power consumption (e.g., see col. 2, lines 60-67). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to implement the teachings of Yano within the system of Veschi in order to provide operation with the improvement of reduced power consumption (e.g., see col. 2, lines 60-67).

However, Veschi in view of Yano may not specifically disclose the information comprises a time-slice parameter.

Qiao, like both Veschi and Yano, teaches improvements for packet-based communications, and specifically, further teaches that it is well known in the art to include a time-slice parameter (e.g., offset time) in a current packet to indicate a “time before transmission of the corresponding burst” (e.g., see col. 2, lines 8-9 regarding “offset time, i.e., a lead time before transmission of the corresponding burst”); Qiao also teaches an invention using IP-over-WDM which also utilizes this well known offset time (e.g., see col. 2, lines 44-55 and col. 4, lines 24-37). Additionally, the teachings of Qiao provide reduced software and hardware redundancies, and increased efficiency and interoperability (e.g., see col. 2, lines 30-55). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to include the well known time-slice parameter (e.g., offset time) disclosed in the packet communications of Qiao within the packet communications of Veschi in view of Yano since such a teaching is both well known in the art of packet communications (e.g., see Qiao, col. 2, lines 8-9) and since one of ordinary skill in the art would be motivated to turn to the teachings of

Art Unit: 2665

Qiao in order to achieve packet communications with reduced software and hardware redundancies, and increased efficiency and interoperability (e.g., see col. 2, lines 30-55).

Regarding claims 2, 20, 25, 31, 39, 44 and 48, Veschi teaches the information specifies, in a way that is independent of a number of data packet-transmission intervals, an amount of time that elapses between transmission of the current packet and transmission of a first-transmitted packet of the subsequent burst of packets (e.g., see FIG. 5 regarding particular time intervals and see Table 1 in col. 14 regarding length of time in ms corresponding to position identifiers; see also col. 13, line 33 – col. 16, line 55). Additionally, Qiao teaches the time-slice parameter information specifies, in a way that is independent of a number of data packet-transmission intervals, an amount of time that elapses between transmission of the current packet and transmission of a first-transmitted packet of the subsequent burst of packets (e.g., see col. 2, lines 5-10 and col. 4, lines 23-37). Also, as discussed above, the teachings of Qiao provide reduced software and hardware redundancies, and increased efficiency and interoperability (e.g., see col. 2, lines 30-55). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to include the well known time-slice parameter (e.g., offset time) disclosed in the packet communications of Qiao within the packet communications of Veschi in view of Yano since such a teaching is both well known in the art of packet communications (e.g., see Qiao, col. 2, lines 8-9) and since one of ordinary skill in the art would be motivated to turn to the teachings of Qiao in order to achieve packet communications with reduced software and hardware redundancies, and increased efficiency and interoperability (e.g., see col. 2, lines 30-55).

Regarding claims 3 and 34, Veschi teaches the information (e.g., position identifier 370) specifies a time-slice duration for transmitting the current burst of packets (e.g., see Table 1 in col. 14 regarding duration/length of time in ms in combination with packet delay in ms).

Regarding claims 4 and 32, Veschi teaches the information includes a time-slice index for numbering originally transmitted bursts of packets (e.g., see Table 1 in col. 14 regarding position identifier).

Regarding claim 5, the buffer of Veschi is inherently large enough to store at least two full bursts of data from the information service provider and any data to be transmitted between transmission of the two full bursts of data (e.g., see col. 10, lines 32-36 regarding queuing data packets having position identifiers). Alternatively, even if the buffer of Veschi is not inherently large enough to store at least two full bursts, it is generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value. The burden of showing criticality is on Appellant. In re Mason, 87 F.2d 370, 32 USPQ 242 (CCPA 1937); Marconi Wireless Telegraph Co. v. U.S., 320 U.S. 1, 57 USPQ 471 (1943); In re Schneider, 148 F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955); In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to increase the size of the buffer to accommodate two or more full bursts since it is generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value.

Regarding claim 6, Veschi teaches the amount of time that elapses between transmitting the current packet and transmitting the first-transmitted packet of the subsequent burst is determined based at least in part upon how many packets will be transmitted between transmitting the current packet and transmitting the subsequent packet (e.g., see Table 1 in col. 14 regarding times in ms, sample number, and position identifier).

Regarding claim 7, Veschi teaches the amount of time that elapses between transmitting the current packet and transmitting the first-transmitted packet of the subsequent burst is determined based at least in part upon an amount of transmitter-idle time between transmission bursts (e.g., see Table 1 in col. 14 regarding delay of each packet in ms).

Regarding claim 8, this claim was rejected in a previous office action by the Examiner taking official notice that the limitations recited in these claims are well known in the art. That is, elastic, FIFO, ring and dual buffers are all well known in the art as available buffer types. In Applicant's response to the previous office action, Applicant has not traversed the Examiner's assertion of official notice or Applicant's traverse is not adequate. Therefore, in accordance with MPEP 2144.03(C), the limitations recited in these claims comprise well-known art and are hereafter taken to be admitted prior art. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to utilize elastic, FIFO, ring and/or dual buffers since such buffers are all well known in the art as available buffer types.

Regarding claims 9, 21, 27, 35, 40, 45 and 49, while Veschi may not specifically disclose the encapsulator places the information (e.g., position identifier 370) into lower layer protocol packet header bits, Veschi rather discloses the time-slice information is provided within message 330 (e.g., see FIG. 3). However, it is generally considered to be within the ordinary skill in the

art to shift the location of parts absent a showing of unexpected results. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to shift the location of the position identifier 370 from message portion 330 to header portion 310 (see FIG. 3) since it is generally considered to be within the ordinary skill in the art to shift the location of parts absent a showing of unexpected results. The contention of obvious choice in design can be overcome if Applicant establishes unexpected results. In re Japikse, 86 USPQ 70 (CCPA 1950).

Regarding claims 10, 22, 28, 36, 41, 46 and 50, these claims were rejected in a previous office action by the Examiner taking official notice that the limitations recited in these claims are well known in the art. That is, DVB DSM-CC protocol is well known in the art to provide digital video broadcast. In Applicant's response to the previous office action, Applicant has not traversed the Examiner's assertion of official notice or Applicant's traverse is not adequate. Therefore, in accordance with MPEP 2144.03(C), the limitations recited in these claims comprise well-known art and are hereafter taken to be admitted prior art. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to utilize the DVB DSM-CC section protocol since such a protocol is well known in the art to provide digital video broadcast.

Regarding claims 11, 23, 29, 37, 42, 47 and 51, Veschi teaches reserved/length field 340 comprises at least one reserved byte for media access control addressing (e.g., see col. 11, line 1 – col. 12, line 30). While Veschi may not specifically disclose information (e.g., position identifier 370) specifically is placed into at least one byte reserved but not used for media access control addressing, at the time of the invention it would have been obvious to one of ordinary skill in the art to utilize the reserved/length field 340 of Veschi for the information (e.g., position

Art Unit: 2665

identifier 370), which, like field 340, is also contemplated by Veschi to comprise one byte (col. 12, lines 4-5), since it is generally considered to be within the ordinary skill in the art to shift the location of parts absent a showing of unexpected results. Still further, in the situation where media access control addressing is not placed in the byte reserved for, e.g., media access control addressing, at the time of the invention it would have been obvious to one of ordinary skill in the art to utilize the unused portion of the reserved/length field 340 for other information such as position identifier 370, in order to efficiently utilize provided resources. The contention of obvious choice in design can be overcome if Applicant establishes unexpected results. In re Japikse, 86 USPQ 70 (CCPA 1950).

Regarding claims 12, 13 and 15-18, these claims were rejected in a previous office action by the Examiner taking official notice that the limitations recited in these claims are well known in the art. That is, indexes of decreasing or increasing order or first/last packet indications are well known in the art of transmitting packet bursts. In Applicant's response to the previous office action, Applicant has not traversed the Examiner's assertion of official notice or Applicant's traverse is not adequate. Therefore, in accordance with MPEP 2144.03(C), the limitations recited in these claims comprise well-known art and are hereafter taken to be admitted prior art. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to implement indexes of decreasing or increasing order or first/last packet indications, since such indexes and first/last packet indications are well known in the art of transmitting packet bursts.

Regarding claims 19, 26 and 33, while Veschi in view of Yano may not specifically disclose including an indication of whether the burst of packets is an original burst or a copy

burst, these claims were rejected in a previous office action by the Examiner taking official notice that the limitations recited in these claims are well known in the art. That is, including an indication of whether the burst of packets is an original burst or a copy burst is well known in the art. In Applicant's response to the previous office action, Applicant has not traversed the Examiner's assertion of official notice or Applicant's traverse is not adequate. Therefore, in accordance with MPEP 2144.03(C), the limitations recited in these claims comprise well-known art and are hereafter taken to be admitted prior art. Accordingly, at the time of the invention it would have been obvious to one of ordinary skill in the art to transmit copy bursts and include indications of whether a burst is an original or a copy since such an implementation is well known in the art.

4. Claims 9, 21, 27, 35, 40, 45 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veschi in view of Yano in view of Qiao, further in view of U.S. Patent Application Publication No. US 2003/0115356 A1 by Block et al.

Regarding claims 9, 21, 27, 35, 40, 45 and 49, Veschi in view of Yano in view of Qiao teach the invention discussed above regarding claims 1, 14, 24, 30 and 38, and while Veschi may not specifically disclose the encapsulator places the information (e.g., position identifier 370) into lower layer protocol packet header bits, Veschi rather discloses the time-slice information is provided within message 330 (e.g., see FIG. 3). However, it is generally considered to be within the ordinary skill in the art to shift the location of parts absent a showing of unexpected results. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to shift the location of the position identifier 370 from message portion 330 to header portion 310

(see FIG. 3) since it is generally considered to be within the ordinary skill in the art to shift the location of parts absent a showing of unexpected results. The contention of obvious choice in design can be overcome if Applicant establishes unexpected results. In re Japikse, 86 USPQ 70 (CCPA 1950).

Additionally, even if it were not obvious to one of ordinary skill in the art to shift the location of the position identifier 370 from message portion 330 to header portion 310 in Veschi based upon the teachings in Veschi in view of Yano in view of Qiao, Block teaches packet communications whereby an identifier is placed into lower layer protocol packet header bits (e.g., see paragraph 0031, and particularly lines 3-5). Further, the identifier placement in Block provides for improved operation upon loss of data in transmission (e.g., see paragraphs 0004-0016 and 0033-0034). Thus, at the time of the invention it would have been further obvious to one of ordinary skill in the art, in view of Block, to place the information (e.g., position identifier 370) of Veschi in view of Yano in view of Qiao into lower layer protocol packet header bits since Block teaches packet communications whereby an identifier is placed into lower layer protocol packet header bits (e.g., see paragraph 0031, and particularly lines 3-5) and since the teachings of Block provides for improved operation upon loss of data in transmission (e.g., see paragraphs 0004-0016 and 0033-0034).

Conclusion

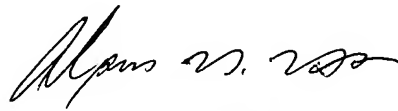
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

Art Unit: 2665

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571.272.3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Justin M Philpott


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PRIMARY EXAMINER